Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

UNITED STATES
DEPARTMENT OF AGRICULTURE
LIBRARY

BOOK NUMBER

566387

Reserve
1.9
P696
1932-1933

GPO 8—7671

1.9
P696
Reserve

LIBRARY
RECEIVED
SEP 25 1946
U. S. DEPT. OF AGRICULTURE

WEEKLY STATION REPORTS

OF THE DIVISION OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

566387

Not for publication without
prior consent of this division.

REPORT FOR THE MONTH ENDING JANUARY 31, 1932.

HAVRE:

The month of January, as a whole, was mild and dry, the mean temperature being 5 degrees above normal and the precipitation only .08 inches. A maximum of 49 degrees on the 11th and 25 degrees below zero on the 31st represented the range in temperatures. Snow cover never exceeded 1 or 2 inches at anytime during the month, a condition which may have some detrimental influence upon the survival of winter grains, alfalfa, and grasses. Wind movement was very pronounced, the hourly average for the month on the 2-foot anemometer being 9.0 miles. On the eleventh, 21.7 miles per hour was recorded for the day, creating an unusually dense dust shroud, most of which originated, however, in the district south and west of the station.

Winter feeding experiments with cattle and hogs, together with the completion and filing of reports, comprised a major part of station activities. Plans for the corn breeding project and the packaging of seed were also completed. Preparation of small grain nursery material for spring seeding is now under way.

JUDITH BASIN:

All extremes of weather have prevailed during the past month. The first ten days of the month were mild with temperatures ranging from 52 degrees, maximum, down to a minimum of 4 degrees. A strong wind on January 11 ended this period of mild temperatures, the temperature dropping from 52 to -12 degrees within 24 hours. This wind did considerable damage over this section of Montana. Russian thistles were drifted against fences and practically all of the north and south fences will have to be rebuilt. In some of the neighboring communities houses were unroofed, haystacks blown away and outbuildings demolished. Four inches of snow fell following the storm but this all disappeared during the three days, January 24 to 27, when the temperature rose to 53 degrees.

During the last four days of the month the weather has been very cold with some snow. The minimum temperatures during these four days has been -23, -19, -30, and -26 degrees, respectively. At present there is about four inches of snow on the ground.

Maximum temperature, 53; minimum, -30; precipitation, .58 inch.

HUNTLEY:

Wintery conditions were more severe during the past month than in any month since January, 1930. Below zero temperatures were recorded on 7 days and precipitation in the form of snow occurred on 9 days and on one day a light rain was received.

Snow covered the ground during most of the month and prevented winter wheat from being exposed to the abrupt temperature changes. When last inspected winter wheat and rye appeared to be in good condition.

Maximum temperature, 57; minimum, 22; precipitation, .86 inch.

SHERIDAN:

Temperatures were slightly below the average for most of the month, but with no extremes except once, on the 14th, and the last three days of the month. Precipitation was about twice the average for the month, and was usually accompanied with wind. All land was fairly well covered with snow for the last half of the month. Wind movement was above the average until the last week. Livestock on the range continued to do well until the last week, when feeding was quite general.

Maximum temperature, 51 on the 11th; minimum, -29 on the 30th; mean, 14, 4 degrees below the average; precipitation, 1.19 inches.

DICKINSON:

January weather was about average in severity. The mean temperature of 10.5 degrees was slightly above normal but was 14.5 degrees below the average for January, 1931. A blizzard on the 12th and 13th was the worst weather of the winter to date. The wind velocity on the 12th averaged 20.4 miles per hour for the twenty-four hours. About 6.5 inches of snow fell during the two days and drifted badly so that all roads were blocked. The minimum temperature of the month was 23 degrees below zero, registered on the 30th and 31st. Ten days during the month had temperatures below zero. Total precipitation for the month was .90 inch.

The Annual Report for the Division of Dry Land Agriculture was completed, and work is being started on a summary of the work of the station for publication.

MANDAN:

Agronomy.

The past month has been mild for January. The Weather Bureau records at Bismarck show the mean temperature as 10 degrees, compared with 25 degrees in 1930, which was the highest mean on record. The maximum temperature for the month was 42 degrees on the 25th. The minimum was -23 on the 30th. The last week of the month was cold. The snowfall for the month was over 5 inches, and the total precipitation .44 of an inch.

In a delayed seeding trial with spring wheat on fallow, the yield in 1931 was 20.5 bushels per acre, compared with 19.3 on the regular date of seeding. The delay in seeding was two weeks. The average yield for the past nine years has been about two bushels per acre in favor of the regular date of seeding. The average delay in seeding for this period has been over three weeks, which is too long. During the past two or three years the delay in seeding has been reduced.

The delayed seeding, with a duckfooting just before seeding, is an effective method of reducing Russian thistles in grain grown on summer fallow. The reduction in yield is not great, and the grain is much easier to handle.

Horticulture

The year 1931 was very poor from the standpoint of fruit production, but fair to good crops of vegetables were grown. The rainfall of 17.44 inches was a little above normal, and there were no prolonged dry spells during the summer, so plants did not suffer as much from drought as in some years. Hot summer temperatures in the latter part of July did some damage to small fruits such as currants and gooseberries.

Winter temperatures were unusually mild. Such killing back as occurred bore little or no relation to the hardiness of the plant, but was due to a weakened condition caused by drought or red spider damage in the previous summer. Some supposably hardy varieties showed severe injury, while some tender varieties came through the winter without apparent damage.

Late spring frosts on May 5 and 19, when temperatures of 19 degrees and 23 degrees, respectively, were recorded, caused severe damage to fruit blossoms. Practically all blossoms of apples and crabs and most all early blooming varieties of plums and Chinese cherries were killed by these late frosts.

Mandan, continued:

Horticulture, continued.

Plum gougers, borers, and currant maggots were the most troublesome insect pests. But few red spiders or aphids were seen. Blight did not do a great deal of damage. Rabbits barked some trees, but such damage was not nearly so severe as in some other years.

BELLE FOURCHE:

Moderate winter weather prevailed the fore part of January, but a severe storm occurred January 6, in which a high wind drove the snow in a blinding blizzard for several hours. Only .12 inch precipitation was collected in the snow gauge, but all highways were blocked with drifted snow, and many of the side roads still remain impassable to automobile travel. In contrast to the storm, the temperature on the following day rose to 36 degrees, and a slow drizzling rain was received late in the evening. The weather turned cold following a light snow on January 12, and sub-zero temperatures were recorded on four successive nights. Below zero temperatures again occurred during the last four days of the month, and the temperature did not rise above zero for three consecutive days, January 30 to February 1.

A number of light snows were received, but not more than .12 inch precipitation was recorded from any one storm. The total precipitation for the month was .33 inch which is .14 inch below the 24-year average for January. The ground has remained covered with snow since the heavy storm the latter part of December, and the feed shortage for livestock is becoming very acute in some sections.

Maximum temperature, 45; minimum, -21; precipitation, .33 inch.

ARDMORE:

The mean temperature for January was approximately three degrees below normal. There were no extremely cold days, but the temperature remained moderately low during nearly the whole month.

The precipitation for the month was .39, or .05 inch above normal. This snow combined with the snow on the ground at the end of December to make the month one of unusual severity for stock. Approximately four-fifths of the ground is covered with snow deep enough to prevent livestock from securing much feed.

Ardmore, continued:

Every snow has been followed by a severe wind, and drifting snow has blockaded the roads at frequent intervals. During much of the month it was not possible to get from Ardmore to Hot Springs or Edgemont by auto. At the present time the road is blocked, and it will undoubtedly remain closed until the snow plow comes through. An aggregate of 12 hours' shoveling was required to open the road from the field station to Ardmore.

The shelter belt has caught an enormous amount of snow. A drift the entire length of the garden shelter belt will average more than five feet deep. Without doubt many of the pine trees will be broken down to some extent when the snow melts. In the experimental plantings the unpruned block and the species block of ash are holding 50 per cent more snow than the other blocks.

The steers being fattened on barley gained 61.3 pounds per head during the 28-day period ending January 29. The lots in the wintering experiment all showed a slight loss.

Maximum temperature for the month, 42; minimum -15; mean, 15.7; precipitation, .39 inch. Average wind velocity, 6.9 miles per hour. This is the highest average velocity for January on record at the field station.

ARCHER:

The weather has not been severe although there were three periods when the minimum temperature reached zero or below. While there has been considerable wind it has not caused severe soil blowing. Thus far the late fall and winter weather has been very dry. The precipitation during January was only .03 of an inch.

The above conditions have been favorable for winter grazing but unfavorable for winter wheat. In addition, rabbits have been rather numerous at times and have severely grazed the varietal, methods of seeding, and methods of tillage plots.

Work at the station has consisted, for the most part, of routine dairy and seed work, report writing, and preparation of budgets.

Archer, continued:

The dairy report shows that the average production for the 21 cows during 1931 was 15,056 pounds of milk and 485 pounds of butterfat. This is in face of the fact that due to the dry season a number of the cows prematurely went dry or practically so before winter feeding operations went into effect. In fact, a couple of heavy milkers broke down almost in the middle of the lactation period. The largest yearly production was 17,056 pounds of milk and 545.16 pounds of butterfat. The cow making this record was dry part of the time during the year and produced a calf.

NORTH PLATTE:

January mean temperature of 21.2 was slightly under normal. The temperature range from -10 to plus 55 was narrower than usual and there were no severe storms. Sub-zero temperatures were recorded on five days, all near the close of the month. The highest minimum was 31, and the lowest maximum 4. The ground was bare of snow until the 25th. A snowfall of 3½ inches on that date and a few flurries at other times produced .41 inch of precipitation. But little thawing has taken place since the snow, and the ground is evenly covered at this date.

Ice harvest will begin within a few days. Work on the new duplex dwelling house has progressed steadily, and the plastering is now about completed.

COLBY:

The month of January was rather disagreeable because of cloudy weather and fairly low temperatures. During the first half of the month the temperatures were normal or a little above and most every day was cloudy. A few clear, cold days occurred during the last half of the month. Moisture was recorded on eleven different days with a total for the month of only .38 of an inch. Most of the moisture came in the form of light snows and gave little relief from the rather dry condition of the soil.

Winter wheat is rather spotted in this section of Kansas. In some fields practically none of it emerged last fall, while in certain areas where local showers were received the crop is large enough to afford some pasture.

Maximum temperature, 55; minimum, -7; precipitation, .38 inch.

GARDEN CITY:

No outside work of any kind was done on the station during the past month. The ground was either frozen or covered with snow. On January 4, .69 inch of moisture fell in the form of snow, part of which remained throughout the month. Four different snows occurred during the month, ranging from about one inch on the level to seven inches. There has been enough moisture added in the form of snow to be of considerable benefit to wheat. Thirty miles north of Garden City the snowfall was much heavier.

During the last week of January a trip was made to Hays for the combine that was constructed there for this station. This combine is mounted directly over a fifteen caterpillar tractor, and cuts an 8-foot swath. The machine appears to be an ideal arrangement for harvesting plots.

Maximum temperature for the month, 54 on the 28th; minimum, .5 degree above on the 31st; precipitation, 1.04 inches.

HAYS:

The weather conditions for the month were generally unfavorable for doing any field work as the ground has been covered with snow since the 4th of January, varying between the limits of 12 inches on the 5th to 2½ inches on the 24th. On the night of the 25th an additional six inches fell, so that by the end of the month the ground was covered to a depth of about 6 inches. Hauling of rough feed and taking care of livestock has been about the extent of farm operations. Owing to snow covered fields and lack of wheat pasturage rough feed is becoming very scarce in some localities.

The first half of the month cloudy weather prevailed for the most part with frequent snows, while the latter half was generally clear and colder. January ranks well up among the coldest months since 1914; the mean minimum being the 6th lowest, the mean maximum and 2nd lowest and the mean being the third lowest. Very little wind movement occurred during the month and as a result the snow is pretty evenly distributed over the fields. The lowest temperature for the month occurred on the 30th, with 14 degrees below zero. The maximum for the same day was four degrees above zero.

Hays, continued:

Winter wheat fields and the plots on the project have been covered with snow so that no observations have been possible, but it seems reasonable that with the protection offered by the snow, together with the added moisture, winter wheat should come through the winter in good shape.

Maximum temperature, 44; minimum, -14; mean maximum, 32; mean minimum, 12.7; mean, 22.4.

Snowfall for the month, 19.8 inches; precipitation, 1.82 inches. Normal precipitation 64-year period, .48 inches; above normal, 1.34 inches.

TUCUMCARI:

There was no unusually cold weather in January, although the mean temperature for the month was several degrees below the long-time average. The highest recorded temperature was 61 degrees, while 8 degrees was the lowest. Precipitation of .72 inch, all in the form of snow, was more than twice the 27-year average for January. Wind velocity, averaging 5.3 miles per hour, was slightly above the average.

Work during the month included grubbing and hauling dead locust stumps, hauling of manure to lawns, raking and burning weeds and leaves which had accumulated in fence rows, and applying poison to young trees to prevent rabbit damage. During and following periods of storm a number of heading baskets were made and window screens painted.

Some cultural work was required toward the close of the month to prevent soil blowing.

DALHART:

A snow of approximately six inches the first of the month drifted badly and blew off of bare fields. At the close of the month these drifts still remained along fences and in the roads. Just preceding the snow strong winds drifted thistles against rabbit-proof fences. This caused the snow to drift as high or higher than the fences and permitted rabbits to walk over the tops of the fences.

Lodging notes during the month showed again this year that Wheatland milo resisted lodging much better than other varieties or crosses. There were still 63 per cent of the Wheatland milo plants standing on January 19. This is considered a very high percentage this late, as seasonal conditions were very unfavorable for the plants to remain erect. Corn is badly lodged in commercial fields where harvesting has not been completed.

BIG SPRING:

Weather conditions have been somewhat more favorable for farm work during the past month, although several light rains and showers have been received. Temperatures have been very mild so far this winter with a minimum of 21 to date. Threshing was finally completed during the early part of January after many starts and stops because of damp and rainy weather.

Considerable time has been spent in stacking Sumac sorgo and hauling milo heads for the cattle feeding work, and also in grinding feed. Other work has consisted of listing increase fields and ginning cotton.

J. M. Jones, Chief of the Animal Husbandry Division, Texas Experiment Station, was a station visitor on January 17 and 18.

Maximum temperature, 72; minimum 21; precipitation, 1.12 inches.

LAMTON: (Report for the months of December, 1931, and January, 1932.)

The winter months of December and January were characterized by mean temperatures that were slightly above normal, cloudy, moisture-laden skies, excessive rainfall, and the absence of wintry storms. With but few exceptions, the wind velocity has been about normal, and fields that have been saturated with water since October 10 dried too slowly to permit the usual amount of winter plowing, listing, etc.

Precipitation (inches) since October 1 was: October, 5.22, November, 6.24, December, 1.40, and January, 4.26. The total of this four-month period, 17.12 inches, is 7.50 inches above normal. The only time since 1870 that the January record has been equaled or exceeded was in 1923 when 4.37 inches were recorded.

Small grains have not made much growth, and wet, muddy fields prevented satisfactory utilization of such pasturage.

The maximum temperature in January was 70, and the minimum was 20, which is the lowest to date this winter.

Station work for the past two months has consisted principally of maintenance and repair work, gravel hauling and digging and pruning trees.

Seeding of spring grains in 1931 began January 21, but the prospects for such field operations before the middle of February, 1932, are very poor.

WOODWARD:

The weather over the past month has been characterized by cloudiness, sleet, snow and fog. This has made it impossible to accomplish much work in the field. Threshing of the sorghums from the general fields, which should have been accomplished has been rendered impossible. Labor has been occupied largely with the repair of machinery and with making cuttings from grapes and other plants. Sorting and storing of material to be sent to farmers for windbreak purposes has also been accomplished.

Precipitation for the month has amounted to 1.06 inches distributed over eleven days. Sixteen days have been recorded as entirely cloudy and six days as partly cloudy. Temperatures have been mild and equable except the last two days when a low of 8 degrees was reached. The maximum for the month was 63 on the 28th.

PENDLETON:

During January it was impossible to do any field work. The nights were rather cold and the days fairly warm. The soil was frozen each morning and thawed during the afternoon. Very little snow fell during the month. Rains on frozen ground caused high run-off which did considerable damage in the surrounding country.

Maximum temperature, 58; minimum, 13; precipitation, 1.00 inch.